Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Centriole**

1. Centrioles are only found in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells. They function in cell \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They have \_\_\_\_\_ groups of \_\_\_\_\_ arrangement of the protein fibers. Draw a picture of a centriole in the box.

**Lysosomes**

2. Lysosomes are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sacks. They are produced by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ body. They consist of a single membrane surrounding powerful \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ enzymes. Those lumpy brown structures are digestive \_\_\_\_\_\_\_\_\_\_\_\_\_. They help protect you by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the bacteria that your white blood cells engulf. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ act as a clean up crew for the cell. Zoom in and draw what you see.

**Chloroplasts**

3. Chloroplasts are the site of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They consists of a \_\_\_\_\_\_\_\_\_\_ membrane. The stacks of disk like structures are called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_. The membranes connecting them are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ membranes. Zoom in and draw a picture.

**Mitochondrion**

4. Mitochondrion is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell. It is the site of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It has a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ membrane. The inner membrane is where most \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ respiration occurs. The inner membranes is \_\_\_\_\_\_\_\_\_\_ with a very large surface area. These ruffles are called \_\_\_\_\_\_\_\_\_\_\_. Mitochondria have their own \_\_\_\_\_\_\_\_ and manufacture some of their own \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Draw a picture of the mitochondrion with its membrane cut.

**Endoplasmic Reticulum (ER)**

5. Endoplasmic Reticulum (ER) is a series of double membranes that \_\_\_\_\_\_\_\_ back and forth between the cell membrane and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. These membranes fill the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ but you cannot see them because they are very \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The rough E.R. has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ attached to it. This gives it its texture. These ribosomes manufacture \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for the cell. The ribosomes are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which manufacture proteins. Draw the rough ER with a ribosome.

**Smooth ER**

6. Smooth E.R. \_\_\_\_\_\_\_\_\_\_\_\_ ribosomes. It acts as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ throughout the cytoplasm. It runs from the cell membrane to the nuclear \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and throughout the rest of the cell. It also produces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for the cell. Draw a picture of the smooth ER.

**Cell Membrane**

7. Cell Membrane performs a number of critical functions for the \_\_\_\_\_\_\_\_. It regulates all that \_\_\_\_\_\_\_\_\_\_\_\_\_ and leaves the cell; in multicellular organisms it allows \_\_\_\_\_\_\_\_\_ recognition. Draw and shade the cell membrane.

**Nucleolus**

8. Nucleus is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell. It is a large \_\_\_\_\_\_\_\_\_\_ spot in eukaryotic cells. It \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ all cell activity. The nuclear membrane has many \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The thick ropy strands are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The large solid spot is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The nucleolus is a spot of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ chromatin. It manufactures \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The chromatin is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in its active form. It is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of DNA and histone proteins. It stores the information needed for the manufacture of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Draw a picture of the nucleus and its nucleolus.

**Golgi Body**

9. Golgi Body is responsible for packaging \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for the cell. Once the proteins are produced by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ E.R., they pass into the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ like cisternae that are the main part of the Golgi body. These proteins are then squeezed off into the little \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which drift off into the cytoplasm. Draw a picture of the Golgi Body as it is squeezing off the proteins.